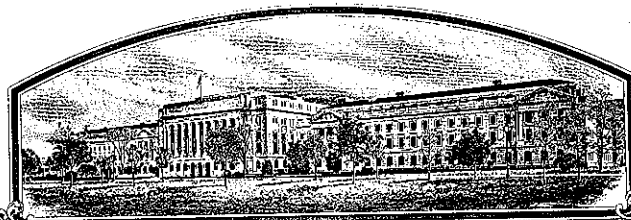


No.



9200222

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXPOSE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (U.S.C. 542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'A2506'

In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington, D.C.
this 28th day of February in
the year of our Lord one thousand nine
hundred and ninety-five.

Attest:

Kenneth H. Evans
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Richard P. ...
Secretary of Agriculture

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Office, OIRM, Room 404-W, Washington, D.C. 20250, and to the Office of Management and Budget, Paperwork Reduction Project (OMB #0581-0055), Washington, 20250.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.	3. VARIETY NAME
Asgrow Seed Company		XP2422	A2506
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP)		5. PHONE (include area code)	FOR OFFICIAL USE ONLY PVPO NUMBER 9200222
9646-190-19 Gull Road Building 190 Kalamazoo Michigan 49001		616-384-2352	
6. GENUS AND SPECIES NAME	7. FAMILY NAME (Botanical)		F I L I N G Date June 24, 1992 Time 4:10 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M. Filing and Examination Fee. \$2150. - Date June 15, 1992 Certificate Fee Feb. 10, 1995 Date 250.00
Glycine Max	Leguminosae		
8. CROP KIND NAME (Common Name)	9. DATE OF DETERMINATION		
Soybean	1987		
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.)			R E C E I V E D
Corporation			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION		12. DATE OF INCORPORATION	
Deleware		March 22, 1968	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS			
Steve Hawkins 9635-190-23		Alan Walker	
616-384-3252 Asgrow Seed Co.		608-755-1777	
Gull Road Building 190		5926 Hwy, 14 East	
Kalamazoo, MI 49001		Janesville, WI 53546	

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)

- a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Novelty Statement
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of Variety
e. ☒ Exhibit E. Statement of the Basis of Applicant's Ownership
f. ☒ Seed Sample (2,500 viable untreated seeds) Date Seed Sample mailed to Plant Variety Protection Office _____
g. ☒ Filing and Examination Fee (\$2,150) made payable to "Treasurer of the United States"

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act)

☐ YES (If "YES" answer items 16 and 17 below) ☒ NO (If "NO," skip to item 18 below)

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES ☒ NO

17. IF "YES" TO ITEM 15, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ YES (If "YES," through ☐ Plant Variety Protection Act ☐ Patent Act Give date _____)
☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?

☐ YES (If "YES," give names of countries and dates)
☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s))	CAPACITY OR TITLE	DATE
	Soybean Breeder	6/9/92
SIGNATURE OF APPLICANT (Owner(s))	CAPACITY OR TITLE	DATE
	Director of Soybean Research	6-4-92

Asgrow Seed Company
 Plant Variety Protection Application - Soybean, A2506
 March 6, 1992

EXHIBIT A

Origin and Breeding History of A2506

- 1983 Cross was made in Ames Iowa -- J831097
- PARENTAGE: Northrup King S14-60*A3501
- 1983-1984 J831097 F₁ and F₂ generations were grown at Isabela, Puerto Rico.
 (winter)
- 1984 Plants of J831097 were grown in bulk at Ames, Iowa.
- 1985 Individual plants of J831097 were grown in short rows at Ames, Iowa.
 Plants were selected from row J85-10220.
- 1986 Sublines from J85-10220 were tested in progeny row yield test
 86YX06. Entry 17 of 86YX06 was selected for high yield, and
 standability.
- 1987 Entry 17 of 86YX06 was entered into the yield test 87P220 as entry
 20. The 87P220 was grown at 3 locations in Iowa, Wisconsin and
 Minnesota. Entry 20 was selected for high yield, uniformity, and
 standability.
- 1988 Entry 20 of the 87P220 was entered into the yield test 88S202 as
 entry 22. This test was grown at 9 locations throughout the
 midwest. Entry 22 was selected for high yield, uniformity and
 standability and was given the designation X2422.
- 1989 X2422 was entered into the yield test 89V201 which was grown at 17
 locations throughout the midwest. X2422 was selected for high
 yield, uniformity, and standability and was given the designation
 XR2422.
- 250 single plants rows were grown in Ames, Iowa to begin the breeder
 seed process.
- 1989-1990 Seed was produced in Isabela, Puerto Rico from uniform plant rows.
 (winter)
- 1990 XR2422 was entered into yield tests in 32 locations throughout the
 Midwest and was selected for high yield, uniformity and standability
 and given the designation XP2422.
- Breeder seed of XR2422 was produced near Perry, Iowa.
- 1991 XP2422 was entered in yield tests in 111 locations throughout the
 midwest. It was approved for release and full production and given
 the designation A2506.

Foundation seed of A2506 was produced near Clarion, Iowa.

continued...

Exhibit A continued...

A2506 is uniform and stable within commercially acceptable limits. As with other soybean varieties, variants can occur for almost any characteristic during the course of repeated sexual reproduction.

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Asgrow Seed Company
Plant Variety Protection Application - Soybean, A2506
March 6, 1992

EXHIBIT B

Novelty Statement concerning A2506 Soybean

To our knowledge the soybean varieties that most closely resemble A2506 are A2543, and A2872. Characteristics which differentiate A2506 include, but are not necessarily limited to, the following:

1. Resistance to race 12 of Phytophthora megasperma:

A2506	=	Resistant
A2543	=	Susceptible
A2872	=	Susceptible

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) <u>Asgrow Seed Company</u>	TEMPORARY DESIGNATION <u>XP2422</u>	VARIETY NAME <u>A2506</u>
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) <u>9635-190-23</u> <u>Gull Road Building</u> <u>Kalamazoo, MI 49001</u>		FOR OFFICIAL USE ONLY PVPO NUMBER <u>9200222</u>

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., 0 9). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:

2

1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)

1

1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1

1 = Dull ('Corsoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

★ 4. SEED SIZE: (Mature Seed)

1 7

Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)

6

1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) _____

★ 6. COTYLEDON COLOR: (Mature Seed)

1

1 = Yellow

2 = Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

2

1 = Low

2 = High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

21 = Type A (SP1^a)2 = Type B (SP1^b)

★ 9. HYPOCOTYL COLOR:

3

1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ 10. LEAFLET SHAPE:

3

1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) _____

11. LEAFLET SIZE:

☐ 21 = Small ('Amsoy 71'; 'A5312')
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

☐ 31 = Light Green ('Weber'; 'York')
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

★ 13. FLOWER COLOR:

☐ 2

1 = White

2 = Purple

3 = White with purple throat

★ 14. POD COLOR:

☐ 1

1 = Tan

2 = Brown

3 = Black

★ 15. PLANT PUBESCENCE COLOR:

☐ 2

1 = Gray

2 = Brown (Tawny)

16. PLANT TYPES:

☐ 31 = Slender ('Essex'; 'Amsoy 71')
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

17. PLANT HABIT:

☐ 3

1 = Determinate ('Gnome'; 'Braxton')

2 = Semi-Determinate ('Will')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ 18. MATURITY GROUP:

☐ 0 ☐ 51 = 000
9 = VI2 = 00
10 = VII3 = 0
11 = VIII4 = I
12 = IX5 = II
13 = X

6 = III

7 = IV

8 = V

★ 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

★ ☐ 0Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)★ ☐ 0Bacterial Blight (*Pseudomonas glycinea*)★ ☐ 0Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

★ ☐ 0Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojae*)★ ☐ 0

Race 1

☐ 0

Race 2

☐ 0

Race 3

☐ 0

Race 4

☐ 0

Race 5

☐ 0

Other (Specify)

☐ 0Target Spot (*Corynespora cassicola*)☐ 1Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)☐ 0Powdery Mildew (*Microsphaera diffusa*)★ ☐ 1Brown Stem Rot (*Cephalosporium gregatum*)☐ 0Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

- ★ ☐ 0 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- ☐ 0 Purple Seed Stain (*Cercospora kikuchii*)
- ☐ 0 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ ☐ 2 Race 1 ☐ 2 Race 2 ☐ 2 Race 3 ☐ 2 Race 4 ☐ 2 Race 5 ☐ 0 Race 6 ☐ 2 Race 7
- ☐ 2 Race 8 ☐ 2 Race 9 ☐ 2 Other (Specify) Resistant to races 10,11,12,13,17,19,20,21
susceptible to races 16,25,26

VIRAL DISEASES:

- ☐ 0 Bud Blight (Tobacco Ringspot Virus)
- ☐ 0 Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ ☐ 0 Cowpea Mosaic (Cowpea Chlorotic Virus)
- ☐ 0 Pod Mottle (Bean Pod Mottle Virus)
- ★ ☐ 0 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ ☐ 1 Race 1 ☐ 1 Race 2 ☐ 1 Race 3 ☐ 1 Race 4 ☐ Other (Specify) _____
- ☐ 0 Lance Nematode (*Hoplolaimus Colombus*)
- ★ ☐ 0 Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ ☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)
- ☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- ☐ 0 Reniform Nematode (*Rotylenchulus reniformis*)
- ☐ OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ ☐ 0 Iron Chlorosis on Calcareous Soil
- ☐ 0 Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ☐ 0 Mexican Bean Beetle (*Epilachna varivestis*)
- ☐ 0 Potato Leaf Hopper (*Empoasca fabae*)
- ☐ 0 Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	A1929	Seed Coat Luster	A2543
Leaf Shape	A2234	Seed Size	A2396
Leaf Color	A2543	Seed Shape	
Leaf Size	A2234	Seedling Pigmentation	

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
A2506 Submitted	130	1.6	80.2			41.7	20.5	16.5	
A2543 Name of Similar Variety	131	1.5	73.7			42.5	20.3	17.5	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTi-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

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Asgrow Seed Company
Plant Variety Protection Application - Soybean, A2506
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EXHIBIT D

Additional Description of the Variety

A2506 is a mid maturity group II cultivar which has demonstrated consistent high yields relative to other cultivars of similar maturity. A2506 offers enhancements in phytophthora root rot protection, combining the Rps_1k and the Rps_7 gene. It has good emergence, excellent standability and above average protein content.

Asgrow Seed Company
Plant Variety Protection Application - Soybean, A2506
March 6, 1992

EXHIBIT E

Statement of the Basis of Applicant's Ownership

A2506 was originated and developed by Kevin W. Matson, Ph.D., an Asgrow plant breeder. By agreement between employee and Asgrow Seed Company, all rights to any invention, discovery, or development made by an employee are assigned to the Company. No rights to such invention, discovery, or development are retained by the employee.